Internationalization paths of fruit export companies from emerging economies: Are they regionally or globally oriented?

L. Losilla¹; A. Engler²; V. Otter¹

1: University of Goettingen, Agricultural Economics and Rural Development, Germany, 2: Universidad de Talca, Agricultural Economics, Chile

Corresponding author email: luis.losilla-solano@agr.uni-goettingen.de

Abstract:

There is a continuing debate regarding firms’ internationalization pathways and the approaches used for firm categorization, resulting in controversial identification of the degree of firms’ globalization. The aim of this paper is to establish a framework to examine the changes in the internationalization strategies of agricultural export companies from emerging economies over time. Thereby seeking to identify conceptual and empirical differences in what is known of export firms acting in non-agricultural sectors in industrialized countries. The matrix of multi-nationality developed by Aggarwal et al. (2011) is extended and tested to classify 233 Chilean fresh fruit exporters according to their internationalization strategies. A longitudinal analysis is conducted over a seven-year period (2009-2015) to explore the dynamics on that internationalization process. Most firms are “transregionally” (65.12%) and “globally” oriented (16.06%), mainly following a linear internationalization path in terms of number of markets but acting more as “born-global” firms in terms of psychic distance. This study provides a more inclusive and nuanced framework than those used in previous studies to classify the level of firms’ internationalization. It also contributes to existing literature by studying companies from the agricultural sector in Chile longitudinally, as a prime example of emerging economies from Latin America.

Acknowledgment: The authors acknowledge the support of the German Academic Exchange Service (DAAD) and the University of Costa Rica on doing this research.

JEL Codes: L25, F23
Internationalization paths of fruit export companies from emerging economies: Are they regionally or globally oriented?

Abstract

There is a continuing debate regarding firms’ internationalization pathways and the approaches used for firm categorization, resulting in controversial identification of the degree of firms’ globalization. The aim of this paper is to establish a framework to examine the changes in the internationalization strategies of agricultural export companies from emerging economies over time. Thereby seeking to identify conceptual and empirical differences in what is known of export firms acting in non-agricultural sectors in industrialized countries. The matrix of multinationality developed by Aggarwal et al. (2011) is extended and tested to classify 233 Chilean fresh fruit exporters according to their internationalization strategies. A longitudinal analysis is conducted over a seven-year period (2009-2015) to explore the dynamics on that internationalization process. Most firms are “transregionally” (65.12%) and “globally” oriented (16.06%), mainly following a linear internationalization path in terms of number of markets but acting more as “born-global” firms in terms of psychic distance. This study provides a more inclusive and nuanced framework than those used in previous studies to classify the level of firms’ internationalization. It also contributes to existing literature by studying companies from the agricultural sector in Chile longitudinally, as a prime example of emerging economies from Latin America.

1. Introduction

In the past, big companies from developed countries have tapped into the globalization trend by participating in international markets to overcome intense competition in domestic markets and
exploit additional sales opportunities. Recently, companies from emerging countries\(^1\) have shown rapid export growth, gaining more occurrence in the global economy, challenging established multinational companies (MNCs) from developed economies (Aulakh, Kotabe and Teegen, 2000; Hoskisson et al., 2000; Aulakh, 2007; Guillén and García-Canal, 2009; Sethi, 2009; Cyrino, Barcellos and Tanure, 2010; Berrill and Mannella, 2013; Bianchi, 2014; Grosse, 2016). Latin American countries such as Chile, Brazil and Argentina have displayed this development (Otter and Theuvsen, 2014). The success of agricultural MNCs located in such economies has changed those countries ‘paradigm from one of import-oriented to export-oriented, generating higher growth rates and contributing immensely to their development (Aulakh, Kotabe and Teegen, 2000; Otter and Theuvsen, 2014). In this regard, nowadays a deep understanding of differences in internationalization strategies of emerging economies’ firms is of particular importance for trade agencies in order to support their expansion into destination markets in the same way it is for firms from industrialized countries.

There are contradictory viewpoints in international business literature studying firms’ internationalization pathways and the systems used for categorization, resulting in controversial identification of the degree of firms’ globalization. While Rugman and Verbeke (2004) with their multi-nationality classification have been criticized for using subjective thresholds and focusing only on the broad triad region\(^2\), Aggarwal et al. (2011) developed with their matrix of multi-nationality as a rather inclusionary approach. However, there is still a lack of research emphasizing the *locus of destination* of firms’ internationalization strategies (Rugman and Verbeke, 2004; Rugman and Oh, 2013) and a dearth of longitudinal studies taking the time

---

1 Countries different than the most advanced ones are classify by Guillén & García-Canal (2009) as upper-middle-income economies (e.g. Spain, Portugal, South Korea, and Taiwan), emerging economies (e.g. Brazil, Chile, Mexico, China, India and Turkey), and oil-rich countries such United Arab Emirates, Nigeria and Venezuela.

2 The broad triad region is formed by the European Union, North America and Asia.
dimension into account when studying the internationalization process (Aggarwal et al., 2011; Kuivalainen et al., 2012; Welch and Paavilainen-Mäntymäki, 2014; Mullen and Berrill, 2015; Chadha and Berrill, 2016; O’Hagan-Luff and Berrill, 2016).

Despite the fact that “emerging economies represent half of the global gross domestic product (GDP) in terms of PPP and more than the half of the economic growth” (Hermelo Diaz and Vassolo, 2012, p. 264), there is little research on non-developed countries regarding international business (Bianchi and Garcia, 2007; Sethi, 2009; Berrill and Mannella, 2013; Sahaym and Nam, 2013). Overall, research on internationalization strategies has been mainly focused on big MNCs from either developed countries or those Asian countries representing emerging economies but only a few studies have investigated Latin American cases mostly in Mexico and Brazil (e.g. Aulakh, Kotabe and Teegen, 2000; Bianchi and Garcia, 2007; Bianchi, 2014; Cuervo-Cazurra, 2008; Cyrino, Barcellos and Tanure, 2010; Diaz Hermelo and Vassolo, 2012; Lopez, Kundu, and Ciravegna, 2009; Sahaym and Nam, 2013; Sethi, 2009). Moreover, scientific literature with such a focus (including goods from the agricultural sector) is even scarcer. To our knowledge the studies by Bianchi and Garcia (2007), Bianchi (2014), Crick, Chaudhry, and Batstone (2000), Heyder, Makus, and Theuvsen (2011), and Sethi (2009) are the only cases available.

Latin America represents around one-third of the world’s developing economy in terms of the Gross National Product (GNP) and ranks second amongst the emerging economy regions after the Asia-Pacific. However, the development process of Asian-Pacific countries is strongly shaped by their industrial sectors, while Latin American countries are mainly influenced by their agricultural export sectors. (Aulakh, Kotabe and Teegen, 2000; Cuervo-Cazurra, 2008; Hermelo Diaz and Vassolo, 2012). Chile is one of the emerging countries in Latin America which was noted for a particularly high export growth in agricultural products and important economic
development since the beginning of the 21st century (Otter, Engler and Theuvsen, 2014; Lakner, Brenes-Muñoz and Brümmer, 2017). Specifically, the fruit sector has contributed to the Chilean economy by accounting for almost 50% of total exports, making this country the main fresh fruit exporter in the southern hemisphere and one of the most important in the world (Klerkx, Villalobos and Engler, 2012; ODEPA, 2017). As a result, since the beginning of 2017, Chile has been considered as a high-income country according to the World Bank’s definition/classification. Chile can therefore serve as a prime example for other emerging economies since it shows the greatest economic development among all Latin American countries based on the export growth of one single sector.

The aim of this study is to contribute to the international business literature in three ways; first, extending the Aggarwal et al. (2011) approach to measure firms’ internationalization by adding a new category to account for host regionally oriented firms, which is highly relevant for the specific case of emerging economies. Second, as recommended by Reuber, Dimitratos, and Kuivalainen (2017) and Welch and Paavilainen-Mäntymäki (2014), providing an in-depth view of the firm’s internationalization dynamics by looking closely into changes in geographical internationalization (and de-internationalization) strategies over time through a longitudinal analysis using a seven-year period between 2009 and 2015. Thirdly, by testing the extended approach on a sample of 233 fresh fruit export companies from Chile; this study contributes to closing the gap of empirical evidence in research on internationalization strategies in the agricultural sectors of emerging countries from Latin America.

The remainder of this paper is structured as follows: the first two sections review the main conceptual literature and theoretical background relating to firms’ internationalization strategies and introduce the Chilean fruit export sector. The subsequent section describes the data and the
classification framework employed. The last two sections provide results, main findings, conclusions and recommendations of the study.

2. Theoretical background and literature review

Chetty and Campbell-Hunt (2003) define internationalization as a series of processes in which firms must adapt to fit into international markets, suggesting that internationalization is a dynamic process, and does not only occur in one. This implies the inclusion of de-internationalization when a firm reduces its presence in international markets (Chetty and Campbell-Hunt, 2003) and re-internationalization when firms re-enter international markets (O’Hagan-Luff and Berrill, 2016).

Firms’ internationalization may have different stages with different level of engagement. This concept is defined by Aggarwal et al. (2011) as the depth of market engagement, which varies from import and export activities to foreign direct investment. Many companies from emerging economies remain in the earliest stages of internationalization, so depend on exports as the only way to participate in international markets (Bianchi and Garcia, 2007; Sagheer, Yadav and Deshmukh, 2009; D’Angelo et al., 2013; Bianchi, 2014). However, few studies have researched the internationalization strategies employed by this kind of firms. Instead they have tended to focus on big MNCs (Bianchi and Garcia, 2007; Cieślik, Kaciak and Welsh, 2012; D’Angelo et al., 2013; Rugman and Oh, 2013).

Regarding the strategy employed by firms to internationalize, there are three key dimensions that define an internationalization strategy: scope, scale, and time\(^3\) (Kuivalainen et al., 2012; Fernández Olmos and Díez-Vial, 2015). Johanson and Vahlne (1977) capture these concepts.

---

\(^3\) Scope is mainly measured as geographical spread of operations, scale as the extent or intensity of foreign operations (FS/TS), and time as the time in international markets or time to internationalize.
when developed the Uppsala model, which proposes that the internationalization occurs gradually as a firm accumulates international market knowledge. This implies that firms will start exporting to a few markets and then extend their international portfolio as they gradually gain experience and resources (McNaughton, 2003; Lopez, Kundu and Ciravegna, 2009; Welch and Paavilainen-Mäntymäki, 2014; Fernández Olmos and Diez-Vial, 2015). However, not all firms follow an incremental process. The so called “born-global” firms experience a rapid expansion into international markets. To be considered as a true born-global firms, this rapid internationalization should occur simultaneously in terms of time (usually three years after the date of firm’s foundation), scale (significant export intensity) and scope (broad market diversification strategy), otherwise firms are only born-regional or born-international (Kuivalainen, Sundqvist and Servais, 2007; Kuivalainen et al., 2012).

When analyzing internationalization, Ghemawat (2001) argues that the cultural, administrative and economic distances between countries play a key role in the firm’s global expansion into new markets in addition to the geographic distance. Psychic distance refers to the factors that hamper an adequate exchange of information between foreign companies and local markets, such as language, development levels, political systems. Companies are expected to venture into new markets gradually, focusing first on those which are at a shorter psychic distance in relation to their country of origin (Johanson and Vahlne, 1977). This concept is also called liability of foreignness (Hymer, 1976; Zaheer, 1995). Rugman and Verbeke (2004, 2007) later extended this concept and applied it at regional level, understanding that the liability of inter-regional foreignness as the disadvantages faced by companies when competing in geographic regions different from their local region. In line with the Uppsala model, Rugman and Verbeke (2004, 2007) expect that firms’ international operations will gradually increase, initially concentrating in
similar regions to their own region and then extending their scope to other regions. In the case of the born-global firms, they are capable of internationalizing to geographically and psychically distant markets from the moment they are created (Lopez, Kundu and Ciravegna, 2009).

D’Angelo, Majocchi, Zucchella, and Buck (2013) and Chetty and Campbell-Hunt (2003) contend that the geographic internationalization pathway, explained as regionally or globally oriented, is another way to explain firms’ internationalization paths by considering political, cultural and geographical aspects as driving forces in the process. In this regard, the most employed classification systems for firms’ internationalization level are the multi-nationality classification developed by Rugman and Verbeke’s (2004) and the matrix of multi-nationality developed by Aggarwal et al. (2011). Results of previous empirical studies find geographic internationalization strategies as mixed, with some arguing that most firms are regionally oriented (Rugman and Verbeke, 2004; Delios and Beamish, 2005; Cerrato, 2009; Sethi, 2009; Rugman, Oh and Lim, 2012; Banalieva and Dhanaraj, 2013; Rugman and Oh, 2013), while others claim that firms are more globally oriented (Osegowitsch and Sammartino, 2008; Aggarwal et al., 2011; Berrill and Mannella, 2013; O’Hagan-Luff and Berrill, 2016).

The contradictory results of previous studies, the high share of studies focused in big MNCs from developed countries, the dearth of longitudinal studies and the scarcity of internationalization studies into Latin American agricultural sectors are the gaps this research aims to fill.

3. The Chilean Fruit Sector

After the period between 1960 and 1973 when an import substitution model prevailed, an open economy model and a strong agricultural export strategy was established by the government. In consequence, Chile achieved exponential growth in exports leading to a significant increase in GDP. In addition, there was a gradual elimination of tariff barriers and the country opened up
strongly to international markets through the establishment of a significant number of trade agreements with countries all over the world. With the introduction of non-traditional agricultural exports in the late 1970s, it became a global exporter of fruit and vegetables (Agosin and Bravo-Ortega, 2009; Otter, Engler and Theuvsen, 2014).

Fruit exports remain the most important activity in Chile’s agricultural sector, representing around 2.6% of the total GDP, almost 50% of the total agricultural exports and 40% of the agricultural gross product over the last decade (Retamales and Sepúlveda, 2011; Klerkx, Villalobos and Engler, 2012). Chile is the most important fruit exporter in the southern hemisphere and the leading exporter of table grapes and blueberries worldwide. According to the Office of Studies and Agricultural Policies (ODEPA), the fruit sector in Chile accounts for 294 thousand hectares and generates around 5 million tons of total production quantity, of which 2.6 million tons are exported as fresh fruit resulting in more than USD 4,000 billion of sales volume per year. The main fruits exported are apples, grapes, kiwis, pears, plums and avocados (ODEPA, 2017).

The unprecedented development of the Chilean economy, which the World Bank has categorized as a high-income country and its becoming a member of the OECD and the great importance of the agricultural export sector in the country’s economy are the main reason why Chile is considered to be a prime example for firms’ internationalization strategies in the agricultural sector of an emerging economy in Latin America. A topic has not been covered by research literature until now. As a result, this country and its case is to be used to test the applicability of the framework developed in this study.
4. Data and Methodology

This empirical longitudinal study is based on data from a sample of 233 exporters retrieved from Eximfruit⁴ who reported uninterrupted international sales over a seven-year period (2009-2015). This sample represents on average 40.38% of all the exporters included in Eximfruit database. However, their export volume accounts on average for 83.48% of the total fruit exports. The scheme employed to assess firms’ internationalization level includes internationalization depth (Aggarwal et al., 2011) and the three dimensions suggested by Fernández Olmos and Díez-Vial (2015) and Kuivalainen et al. (2012): scope, scale and time. Regarding internationalization depth, as with previous authors (Rugman and Verbeke, 2004; Berrill and Mannella, 2013; Mullen and Berrill, 2015), this study focuses on the level of trade.

Firms’ internationalization scope or breadth is measured in this study by using the number of geographic regions they have as export destinations. Therefore, the six geographic regions generally employed in Chile to report export destinations are distinguished as: Far East & South Pacific, Middle East & Africa, North America, Mexico-Central America & the Caribbean, South America, and Europe. Unlike other authors who have limited the analysis to the triad or the broad triad region (Rugman and Verbeke, 2004, 2008; Osegowitsch and Sammartino, 2008; Asmussen, 2009; Rugman, Oh and Lim, 2012; Rugman and Oh, 2013), all the inhabited continents are included in the analysis, as suggested by Rugman and Oh (2013). Omitting from the analysis countries outside the broad triad region would lead to inaccurate results because emerging economies have recently acted as recipients of significant investment and international sales (Sethi, 2009).

---

⁴ Eximfruit is a database of Inglobo, and gathers seasonal information of Chilean fresh fruit exports showing its distribution by geographic regions.
In this study firms are classified in terms of their internationalization level by following the Aggarwal et al. (2011) multi-nationality matrix, since it does not impose any subjective and exclusionary thresholds unlike the one proposed by Rugman and Verbeke (2004). However, this scheme excludes firms exporting only to one region different than the home region. In the case of the Chilean fruit exports, North America and Europe are considered the natural target markets (Sparks and Bravo-Ureta, 1993; Agosin and Bravo-Ortega, 2009; Otter, Engler and Theuvsen, 2014). For this reason, it is expected that an important number of firms exporting only to one of these two regions might be excluded from the analysis. Thus, the framework proposed by Aggarwal et al. (2011) is extended by adding the category host regional (H), which is based on the definition of a host regionally oriented firm in Rugman and Verbeke’s (2004) classification system, but without imposing any threshold. Conversely, the domestic category (D) is excluded from the analysis since this study focuses on export companies only. Thereby, the framework employed classifies firms as home regional (R), host regional (H), transregional (T) or global (G). A firm is classified as regional (R) when it exports only to the home region. Simultaneously, a regional firm (R) will be sub-classified as R1 if it exports to less than one third of the countries in the home region, R2 if it does to more than one third but less than two third of the countries and R3 if it exports to more than two third of the countries. A host regional firm (H) exports to only one geographic region different than home region. Firms exporting to more than one region but less than six are classified as transregional (T). They are then subdivided as T2, T3, T4 and T5 depending on the number of regions they export to. Finally, firms are classified as global (G) when they export to all the six geographic regions.

---

5 Home region refers to the geographic region where a firm is physically located, which in this case turns to be South America.
In their classification system Aggarwal et al. (2011) only consider firms’ geographic distribution of exports unweighted. In this study the Chadha and Berrill (2016) suggestion is followed by including in the analysis the share of every geographic region to total exports as a measure of \textit{scale}. Using both measures (\textit{scope} and \textit{scale}) allows for a more robust analysis including the exports’ spread, while simultaneously controlling for companies with a strong orientation towards a specific region (Chadha and Berrill, 2016).

In this analysis, \textit{time} is considered by only including firms with uninterrupted exports over the seven-year period. Possible survivor bias effect is acknowledged (Rugman and Verbeke, 2008) but it permits exploring the changes and the path or patterns of firms’ internationalization and the speed of the process (Mullen and Berrill, 2015; Chadha and Berrill, 2016; O’Hagan-Luff and Berrill, 2016).

5. Results

5.1. Descriptive Statistics

The distribution of total Chilean fruit exports and the number of companies exporting to the different regions in the data set identifies North America and Europe as the main destinations during the whole period of analysis (Table I). Nevertheless, the importance of these two regions decreases over the years 2009 and 2015. The latter shows that the decrease reported in export shares is due to sales redistribution and not due to general shifts in export destinations. The case of Far East & South Pacific is different; here the export share growth has been also accompanied by an increase of 35 additional firms selling fresh fruit to this region in 2015 representing a growth of 26.72%. According to Sonntag et al, (2016) these changes in export shares can be explained by two main factors: first, the economic growth of some Asian economies over the past several years, increasing their demand and willingness to pay for products as fresh fruits. Second,
the diminished attractiveness of developed countries (such as Europe) as export markets due to price reductions, currency devaluation and stricter food standards. Additionally, technological advances in packing and transport systems nowadays extend the life-cycle of the fruits and permit penetration of geographically distant markets South America, the home region in this study, represents on average 7.89% of total exports with a very low change rate of 0.48 percentage points over the years. However, the number of firms rises to about 22 (20.75%) showing a greatly increased number of firms with relatively low commitment in terms of their total export shares. As with total export shares, the total number of firms exporting to Mexico-Central America & Caribbean also record a great decrease (21.35%). Even though export market shares to Middle East & Africa decrease between the years 2009 and 2015, the number of firms increases, representing a growth rate of 32.56%.

Table I. Distribution of total exports and number of firms by geographical region. N=233

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Distribution of exports (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South America</td>
<td>7.92</td>
<td>5.64</td>
<td>7.41</td>
<td>9.01</td>
<td>8.19</td>
<td>8.71</td>
<td>8.39</td>
<td>7.89</td>
<td>0.48</td>
</tr>
<tr>
<td>Europe</td>
<td>32.97</td>
<td>33.53</td>
<td>31.53</td>
<td>29.39</td>
<td>29.58</td>
<td>28.98</td>
<td>26.50</td>
<td>30.35</td>
<td>-6.47</td>
</tr>
<tr>
<td>Mexico, Central America &amp; Caribbean</td>
<td>3.88</td>
<td>2.94</td>
<td>3.12</td>
<td>3.15</td>
<td>2.89</td>
<td>3.09</td>
<td>2.87</td>
<td>3.13</td>
<td>-1.01</td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td>4.54</td>
<td>4.57</td>
<td>5.06</td>
<td>3.93</td>
<td>3.99</td>
<td>2.46</td>
<td>3.35</td>
<td>3.98</td>
<td>-1.19</td>
</tr>
<tr>
<td>North America</td>
<td>40.81</td>
<td>42.82</td>
<td>39.19</td>
<td>37.70</td>
<td>37.78</td>
<td>36.35</td>
<td>35.97</td>
<td>38.66</td>
<td>-4.84</td>
</tr>
<tr>
<td><strong>Panel B: Distribution of firms (number)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South America</td>
<td>106</td>
<td>129</td>
<td>123</td>
<td>133</td>
<td>132</td>
<td>130</td>
<td>128</td>
<td>125.86</td>
<td>22 (20.75)</td>
</tr>
<tr>
<td>Europe</td>
<td>173</td>
<td>179</td>
<td>179</td>
<td>177</td>
<td>183</td>
<td>174</td>
<td>170</td>
<td>176.43</td>
<td>-3 (-1.73)</td>
</tr>
<tr>
<td>Far East &amp; South Pacific</td>
<td>131</td>
<td>148</td>
<td>164</td>
<td>163</td>
<td>169</td>
<td>166</td>
<td>166</td>
<td>158.14</td>
<td>35 (26.72)</td>
</tr>
<tr>
<td>Mexico, Central America &amp; Caribbean</td>
<td>89</td>
<td>83</td>
<td>78</td>
<td>79</td>
<td>74</td>
<td>74</td>
<td>70</td>
<td>78.14</td>
<td>-19 (-21.35)</td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td>43</td>
<td>48</td>
<td>61</td>
<td>58</td>
<td>62</td>
<td>51</td>
<td>57</td>
<td>54.29</td>
<td>14 (32.56)</td>
</tr>
<tr>
<td>North America</td>
<td>185</td>
<td>191</td>
<td>190</td>
<td>194</td>
<td>195</td>
<td>191</td>
<td>184</td>
<td>190.00</td>
<td>-1 (-0.54)</td>
</tr>
<tr>
<td>South America</td>
<td>106</td>
<td>129</td>
<td>123</td>
<td>133</td>
<td>132</td>
<td>130</td>
<td>128</td>
<td>125.86</td>
<td>22 (20.75)</td>
</tr>
<tr>
<td>Europe</td>
<td>173</td>
<td>179</td>
<td>179</td>
<td>177</td>
<td>183</td>
<td>174</td>
<td>170</td>
<td>176.43</td>
<td>-3 (-1.73)</td>
</tr>
</tbody>
</table>

Notes: Last column in Panel A shows variations between 2009 and 2015 expressed as absolute changes (percentage points) and not as percentage changes to facilitate the analysis. Last column in Panel B shows variations between 2009 and 2015. Figures in parentheses correspond to percentages.
5.2. *Internationalization firms’ categorization*

Regarding firms’ internationalization classification according to the framework described, the findings show that on average, 65.12% of the sample are transregional firms (T), 16.06% are global (G), 12.75% are host regional (H) and 6.07% are classified as regional (R) (Table II).

**Table II. Classification of firm’s internationalization. N=233**

<table>
<thead>
<tr>
<th>Category</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>13 (5.58)</td>
<td>16 (6.87)</td>
<td>14 (6.01)</td>
<td>14 (6.01)</td>
<td>13 (5.58)</td>
<td>14 (6.01)</td>
<td>13 (5.58)</td>
<td>14 (5.95)</td>
</tr>
<tr>
<td>R2</td>
<td>0 (0.00)</td>
<td>0 (0.00)</td>
<td>0 (0.00)</td>
<td>0 (0.00)</td>
<td>0 (0.00)</td>
<td>0 (0.86)</td>
<td>2 (0.12)</td>
<td></td>
</tr>
<tr>
<td>Total R</td>
<td>13 (5.58)</td>
<td>16 (6.87)</td>
<td>14 (6.01)</td>
<td>14 (6.01)</td>
<td>13 (5.58)</td>
<td>14 (6.01)</td>
<td>15 (6.44)</td>
<td>14 (6.07)</td>
</tr>
<tr>
<td>H</td>
<td>41 (17.6)</td>
<td>30 (12.88)</td>
<td>25 (10.73)</td>
<td>24 (10.3)</td>
<td>22 (9.44)</td>
<td>32 (13.73)</td>
<td>34 (15.99)</td>
<td>30 (12.75)</td>
</tr>
<tr>
<td>T2</td>
<td>46 (19.74)</td>
<td>41 (17.6)</td>
<td>39 (16.74)</td>
<td>37 (15.88)</td>
<td>39 (16.74)</td>
<td>32 (13.73)</td>
<td>36 (15.45)</td>
<td>39 (16.55)</td>
</tr>
<tr>
<td>T3</td>
<td>40 (17.17)</td>
<td>39 (16.74)</td>
<td>55 (23.61)</td>
<td>50 (21.46)</td>
<td>52 (22.32)</td>
<td>46 (19.74)</td>
<td>43 (18.45)</td>
<td>46 (19.93)</td>
</tr>
<tr>
<td>T4</td>
<td>35 (15.02)</td>
<td>36 (15.45)</td>
<td>27 (11.59)</td>
<td>38 (16.31)</td>
<td>30 (12.88)</td>
<td>45 (19.31)</td>
<td>38 (16.31)</td>
<td>36 (15.27)</td>
</tr>
<tr>
<td>T5</td>
<td>27 (11.59)</td>
<td>37 (15.88)</td>
<td>33 (14.16)</td>
<td>30 (12.88)</td>
<td>36 (15.45)</td>
<td>26 (11.16)</td>
<td>29 (12.45)</td>
<td>31 (13.37)</td>
</tr>
<tr>
<td>Total T</td>
<td>148 (63.52)</td>
<td>153 (65.67)</td>
<td>154 (66.1)</td>
<td>155 (66.53)</td>
<td>157 (67.39)</td>
<td>149 (63.94)</td>
<td>146 (62.66)</td>
<td>152 (65.12)</td>
</tr>
<tr>
<td>G</td>
<td>31 (13.3)</td>
<td>34 (14.59)</td>
<td>40 (17.17)</td>
<td>40 (17.17)</td>
<td>41 (17.6)</td>
<td>38 (16.31)</td>
<td>38 (16.31)</td>
<td>37 (16.06)</td>
</tr>
</tbody>
</table>

Notes: R (Regional firms), R1 (exports to less than 1/3 of home region countries), R2 (exports to more than 1/3 but less than 2/3 of home region countries), H (Host regional firms), T (Transregional firms: from 2 to 5 geographic regions), G (Global firms). Category R3 is omitted in the table because it does not contain any firm. Figures in parentheses a correspond to percentages.

Similar results were found by Aggarwal *et al.* (2011), Berrill and Mannella (2013), and O’Hagan-Luff and Berrill (2016). Regarding the changes in the internationalization categories between 2009 and 2015, T2 and H show the biggest reduction with ten and seven firms shifting to other categories. The increase in category G is important over the seven years, especially in 2013, when becomes the second most important. Until the year 2014 all R firms are classified as R1 with their export activities therefore focused only on one or two countries in South America.
(mainly Peru, Brazil, Ecuador, and Argentina). In 2015 two firms are classified as R2 and show a gradual internationalization process. No company achieves the R3 classification in the period analyzed. In the case of the transregional category, the most employed strategy is T3 and the least employed is T5 representing 19.93% and 13.37% of the sample respectively.

Firms’ internationalization was first analyzed longitudinally by comparing the distribution of the firms’ categories between 2009 and 2015 to determine their changes. Then, the yearly variation between the categories each firm had occupied over the seven-year period was tracked in order to determine if they followed a linear or a non-linear internationalization/de-internationalization path. Results of the changes’ analysis between 2009 and 2015 are shown in Table III. From the 13 firms categorized as R in 2009, 76.92% remain in this category by 2015, three firms internationalize, two firms achieve T2 and one firm reaches T3. The H category represents the highest share of firms internationalizing in the dataset (60.98%). In fact, this category includes the only firm advancing five categories and two firms advancing four categories by the end of the seven-year period. The latter was also achieved by one T2 firm, following an incremental or linear internationalization process in contrast to the H firms which followed a non-linear path. De-internationalization evidence is observable in all categories but the H category. Whereas, 26.09% of the T2 firms do not change in classification and 30.43% de-internationalized, 43.48% expand to other geographic regions and achieve higher categories by 2015. From the 27 firms classified as T5 in 2009, seven (25.93%) advance in their internationalization level and become global by 2015, twelve (44.44%) remain in the same category and the remaining eight (29.63%) de-internationalize. The T4 category shows the highest share of firms de-internationalizing (45.71%) and the firm with the greatest de-internationalization development, reducing four categories to become regional again. Beside this firm, only one T3 firm and two T2 firms become
regional firms again by 2015. From the 31 G firms, 80.65% remain global in 2015 while only 19.63% de-internationalized.

When analyzing the distribution of the firms changing categories from 2009 to 2015 as aggregate data (last column in Table III), it becomes clear that 43.78% of the firms are fixed in the same category in 2015 as they were in 2009. Additionally, 31.76% of the firms shift one category, while 24.46% change more than one category. The share of firms internationalizing (32.62%) is more prominent than those de-internationalizing (23.61%).

Table III. Changes in the classification of firm’s internationalization between 2009 and 2015. N=233

<table>
<thead>
<tr>
<th>Number of categories changed</th>
<th>R</th>
<th>H</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>T5</th>
<th>G</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>-4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>-3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>-2</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>-1</td>
<td>-</td>
<td>0</td>
<td>11</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>0</td>
<td>10</td>
<td>16</td>
<td>12</td>
<td>14</td>
<td>13</td>
<td>12</td>
<td>25</td>
<td>102</td>
</tr>
<tr>
<td>(76.92)</td>
<td>(39.02)</td>
<td>(26.09)</td>
<td>(35.00)</td>
<td>(37.14)</td>
<td>(44.44)</td>
<td>(80.65)</td>
<td>(43.78)</td>
<td></td>
</tr>
<tr>
<td>+1</td>
<td>0</td>
<td>13</td>
<td>10</td>
<td>9</td>
<td>2</td>
<td>7</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>(0.00)</td>
<td>(31.71)</td>
<td>(21.74)</td>
<td>(22.50)</td>
<td>(5.71)</td>
<td>(25.93)</td>
<td>-</td>
<td>(17.60)</td>
<td></td>
</tr>
<tr>
<td>+2</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(15.38)</td>
<td>(12.20)</td>
<td>(8.70)</td>
<td>(15.00)</td>
<td>(11.43)</td>
<td>-</td>
<td>-</td>
<td>(9.01)</td>
<td></td>
</tr>
<tr>
<td>+3</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(7.69)</td>
<td>(9.76)</td>
<td>(10.87)</td>
<td>(0.00)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>+4</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>(0.00)</td>
<td>(4.88)</td>
<td>(2.17)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(1.29)</td>
<td></td>
</tr>
<tr>
<td>+5</td>
<td>0</td>
<td>0</td>
<td>2.44</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.43</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>41</td>
<td>46</td>
<td>40</td>
<td>35</td>
<td>27</td>
<td>31</td>
<td>233</td>
</tr>
</tbody>
</table>

Notes: R (Regional firms), H (Host regional firms), T (Transregional firms: from 2 to 5 geographic regions), G (Global firms). Figures in parentheses correspond to percentages in every category.

In terms of the frequency and direction of the category changes experienced by all the firms per year, the share of those exporters showing no variation is lower than those changing. This situation does not vary significantly over time (see Figure 1). However, de-internationalization changes constantly increase (exceeding internationalization changes) in 2013/2014, then show
strongly reversed trends in the following year. After a convergence in trends, the numbers reveal a more balanced scenario in the year 2015.

![Graph showing changes in firm internationalization](image)

**Figure 1.** Frequency and direction of changes in classification of firms’ internationalization.

When tracking annual category changes experienced by each firm over the seven years of analysis (Table IV), results indicate that when firms internationalize (firms internationalizing), 105 (45.06%) follow a linear internationalization path in terms of market numbers, 25 firms (10.73%) follow a non-linear path\(^6\), while 37 firms (15.88%) interchange periods of linear and non-linear internationalization (mixed path). The remaining 66 firms (28.33%) do not show any evidence of internationalization. In the case of firms de-internationalizing, 123 (52.79%) follow a linear path, 38 firms (16.31%) a non-linear path, 12 (5.15%) follow a mixed path and 60 (25.75%) do not show de-internationalization developments. These results show that most firms prefer to increase or decrease their market portfolio by one more geographic region per year only, which could indicate the existence of some liability of inter-regional foreignness when accessing new markets. Results also highlight the dynamism of the Chilean fresh fruit export sector, especially in the case of the host region and transregional oriented firms.

\(^6\) Firms following a linear path include only one single additional market per year to their portfolio, while firms following a non-linear path add more than one.
Table IV. Distribution of firms by internationalization path. N=233

<table>
<thead>
<tr>
<th>Path</th>
<th>Firms Internationalizing</th>
<th>Firms De-internationalizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear</td>
<td>105 (45.06)</td>
<td>123 (52.79)</td>
</tr>
<tr>
<td>Non-linear</td>
<td>25 (10.73)</td>
<td>38 (16.31)</td>
</tr>
<tr>
<td>Mixed</td>
<td>37 (15.88)</td>
<td>12 (5.15)</td>
</tr>
<tr>
<td>No change</td>
<td>66 (28.33)</td>
<td>60 (25.75)</td>
</tr>
</tbody>
</table>

Notes: Figures in parentheses a correspond to percentages.

Table V shows average exports distributed by geographical region according to the internationalization category as a measure of internationalization scale. It becomes evident that North America is the most important region for firms in all categories. This is especially the case for H firms, which export 64.80% of their total exports to this market. The second most important destination region is Europe, especially for G firms (32.21%) and T4 firms (30.93%). The region of Mexico-Central America & Caribbean and the region of Middle East & Africa are less important for Chilean fruit export companies in general. For all categories (except R), the ratio of exports outside the home region to total exports accounts for more than 91%. South America is, in most of the cases, the fourth most important market, especially for T2 and G firms. Nevertheless, firms do not enter the home region before other more distant regions (except for 3 R firms) so follow more born-global internationalization path in terms of psychic distance.

Table V. Average exports’ geographical distribution by internationalization category 2009-2015. N=233

<table>
<thead>
<tr>
<th>Region</th>
<th>H</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>T5</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe (%)</td>
<td>22.58</td>
<td>22.24</td>
<td>23.29</td>
<td>30.93</td>
<td>29.76</td>
<td>32.21</td>
</tr>
<tr>
<td>Far East &amp; South Pacific (%)</td>
<td>8.24</td>
<td>7.01</td>
<td>15.09</td>
<td>15.23</td>
<td>16.34</td>
<td>17.09</td>
</tr>
<tr>
<td>Mexico, Central America &amp; Caribbean (%)</td>
<td>0.87</td>
<td>4.82</td>
<td>2.14</td>
<td>1.59</td>
<td>2.57</td>
<td>3.56</td>
</tr>
<tr>
<td>Middle East &amp; Africa (%)</td>
<td>3.51</td>
<td>2.74</td>
<td>1.26</td>
<td>0.81</td>
<td>2.22</td>
<td>5.42</td>
</tr>
<tr>
<td>North America (%)</td>
<td>64.80</td>
<td>54.38</td>
<td>53.96</td>
<td>45.66</td>
<td>42.54</td>
<td>32.95</td>
</tr>
<tr>
<td>South America (%)</td>
<td>0.00 (-)</td>
<td>8.81 (-14.15)</td>
<td>4.26 (0.56)</td>
<td>5.78 (0.52)</td>
<td>6.57 (0.06)</td>
<td>8.76 (1.69)</td>
</tr>
</tbody>
</table>

Notes: H (Host regional firms), T (Transregional firms: from 2 to 5 geographic regions), G (Global firms). Category R is omitted because exports to home region are 100%. Figures in parentheses in last row (South America) shows variations between 2009 and 2015 expressed as absolute changes (percentage points) and not as percentage changes to facilitate the analysis.
6. Conclusions and discussion

This paper has examined the internationalization strategies of export companies from the agricultural sector in Chile as a prime example of emerging economies from Latin America. The multi-nationality matrix developed by Aggarwal et al. (2011) was extended and tested to classify 233 fruit export firms according to their internationalization strategies over a seven-year period from 2009 to 2015. Overall, the results are in line with previous studies (Chetty and Campbell-Hunt, 2003; Aggarwal et al., 2011; Berrill and Mannella, 2013; O’Hagan-Luff and Berrill, 2016) showing that most companies are not home regionally oriented but are mainly transregionally (65.12%) and globally oriented (16.06%). These results show that firms in the Latin American agricultural sector have similarities in strategical behavior with firms from other sectors or industrialized countries with regard to their internationalization classification. This is an assumption that has not been tested before in the academic literature and greatly supports the general applicability and adaptability of the framework regarding the case of emerging economies. Additionally, based on the extension of the Aggarwal et al. (2011) classification system, an important percentage of firms was identified (12.75%) that only export to one geographic region outside South America. This result empirically supports the specific applicability of the conceptual extension of the Aggarwal et al. (2011) matrix of multinationality, namely with the inclusion of the H category to account for the host regional firms, as developed in this study.

Additionally, by including each firm’s share of exports to every geographic region and in relation to total exports as a measure of scale in the framework, the importance of every region for Chilean fruit exports is highlighted and provides a more robust analysis. North America and Europe appear as the most important export markets, even though both have seen significant
decreases in their export shares in recent years, especially for firms in the most internationalized categories (T5 and G). Simultaneously, Far East & South Pacific has emerged as the most important alternative market, showing increases in both the number of firms and the export share destined for this region. In recent years, South America has also become a valuable option for some firms as a substitute export market, replacing regions such as Europe which has lost attractiveness. In this regard, the study supports the hypotheses made in recent academic literature on the increasing trend towards South-South trade in international fresh fruit markets (Sonntag et al., 2016). This result not only highlights the importance of the home region as a vital element in the conceptual framework when analyzing internationalization strategies in emerging economies but also serves as a foundation for practical implications. Public organizations and private trade associations such as the Chilean governmental export promotion agency ProChile, the Chilean fresh fruit exporters association ASOEX (private, non-profit) and the federation of Chilean fruit producers Fedefruta (private, non-profit) should support Chilean fruit exporters in further exploiting fresh fruit markets in South America as part of their home region. These markets have developed in recent years as important alternative export markets due to the shorter geographical distance, less stringent regulations and more favorable prices in comparison to other more distant markets. All these advantages should motivate public trade organizations and private trade export associations in the Chilean fruit sector to adapt and expand their services (e.g. training, strategy consulting, trade network development) provided to export firms.

R firms in particular show the lowest internationalization attempts, implying that these firms may need more support from extension services and export/trade associations in order to overcome the entry barriers of non-home region markets such as lack of market knowledge, uncertainty regarding legal environment and liability as well as differences in business ethics due to cultural
differences. Simultaneously, H firms show higher internationalization attempts, leading to the interpretation that born-global firms which initially exported to non-home markets face lower entry barriers when entering new export markets, at least those showing similar characteristics (e.g. cultural, economic, and administrative) (Reuber, Dimitratos and Kuivalainen, 2017). For entries in new markets with a great disparity in characteristics, the probability of success depends most on the capabilities and resources of the particular firm (Barney, 1991). Vice versa, internationalization may risk an export firms’ destabilization (Reuber, Dimitratos and Kuivalainen, 2017). This risk is currently often cast aside in Chile, where many firms “blindly” follow the example of others to new and more distant markets such as Middle East & Africa and Far East & South Pacific, even when those others are endowed with more appropriate capabilities and resources. In this regard, export support organizations should help firms, especially those with less international experience, by providing information on particular markets, legal conditions and particular codes of conduct in those regions. Additionally, it is crucial for the export firms to receive importers’ background information including their reliability. Export supporting organizations should therefore regard the establishment and extension of business networks as the main focus of attention e.g. by opening external offices and forming new business alliances in countries with upcoming markets. Finally, private export associations should also place more focus on their role as lobby-groups to influence political decisions regarding international trade in favor of exporting firms’ interests.

Furthermore, the results of this study indicate the relevance of a longitudinal analysis in the investigation of firms’ internationalization strategies, which is still underrepresented in the international business literature so far. When tracking the changes experienced by firms over time, a linear or incremental path of internationalization can be observed in the majority of the
fruit export firms in Chile regarding the number of geographic regions. Firms mainly prefer to extend their market scope by one single geographic region per year, indicating the presence of some liability of inter-regional foreignness. However, similar to large Brazilian agribusiness firms (Cyrino, Barcellos and Tanure, 2010), Chilean fruit exporters do not follow the Uppsala gradualist internationalization approach in terms of psychic distance, as proposed in earlier studies on firms from the industrial sector (Lopez, Kundu and Ciravegna, 2009; D’Angelo et al., 2013; Rugman and Oh, 2013). Instead, most of the firms do not start internationalizing by first entering nearby markets and then expanding their export activities to more remote regions gradually. They act rather as born-global and born-international firms by entering distant regions directly (Kuivalainen, Sundqvist and Servais, 2007; Kuivalainen et al., 2012). The higher risk of failure caused by such managerial “jumps into the deep end” further increases the importance of public trade organizations and private export associations implications as already identified.

Finally, the high share of firms switching between categories/subcategories one or more times forwards and/or backwards, plus the number of firms changing internationalization pathways over the years indicate the very high dynamism of internationalization in the Chilean fruit export sector. Hence, internationalization cannot be considered a one-off management goal or a status but rather a dynamic process in which firms are constantly changing their strategy (Reuber, Dimitratos and Kuivalainen, 2017). In this regard, policymakers and trade facilitation agencies in the Chilean fruit sector must focus not only on helping firms to become internationalized but also on offering more flexible and adaptable services and training to prepare them to maintain their presence in international markets over time.

This study offers conceptual and practical implications for one agricultural activity. Future studies using the extended framework developed should therefore include and combine more
export based activities from other sectors in emerging economies to extend the evidence on its
generalization and related empirical insights. Additionally, this study focuses on one mode of
international business activities only, namely the export of products, implying further research on
developing and testing the framework regarding other modes such as foreign direct investments,
strategic alliances and licensing/franchising. Apart from the potentials for conceptual research on
the matrix of multi-nationality, empirical follow-up studies should focus on the determination of
managers’ strategic choices regarding internationalization processes and how that influences on
firm performance in emerging economies’ agricultural export sectors. Since this study is mainly
aimed at conceptual developments, it does not seek to explain managers’ strategic behavior in
making internationalization decisions. Hence, it is necessary to go further of this classification
(Reuber, Dimitratos and Kuivalainen, 2017) and derive additional concrete management
implications, on the one hand through identifying and quantifying the determinants of the
adoption of different internationalization strategies such as the managers’ profiles (D’Angelo et
al., 2013), cultural, administrative, geographical and economic distance (Ghemawat, 2001) plus
risk aversion. On the other hand, through exploring the influences of different internationalization
strategies on the agribusiness firm’s performance (Asmussen, 2009).

7. References

corporation? Classifying the degree of firm-level multinationality’, International Business


from emerging economies: evidence from Brazil, Chile, and Mexico’, Academy of


